

Title (en)

THERMOPLASTIC POLYMER MASTERBATCH

Title (de)

THERMOPLASTISCHES POLYMERMASTERBATCH

Title (fr)

MÉLANGE-MAÎTRE D'UN POLYMÈRE THERMOPLASTIQUE

Publication

**EP 3114168 A1 20170111 (EN)**

Application

**EP 15707619 A 20150302**

Priority

- EP 14305308 A 20140304
- EP 2015054279 W 20150302

Abstract (en)

[origin: WO2015132190A1] Process for increasing the scratch resistance of a composition comprising a thermoplastic organic polymer and a scratch resistant polymer composition per se. The process for increasing the scratch resistance of a composition comprising a thermoplastic organic polymer (P) comprises reactively mixing a thermoplastic organic polymer (A) and an organopolysiloxane (B) in a first step (I) at a temperature at which the thermoplastic organic polymer (A) and the organopolysiloxane (B) are in liquid phases to form a masterbatch, wherein the organopolysiloxane (B) contains at least one functionality capable of reacting with the thermoplastic organic polymer (A) so that a copolymer of (A) and (B) is formed in the masterbatch during the reactive mixing, and in a second step (II) mixing the masterbatch with the composition comprising thermoplastic organic polymer (P).

IPC 8 full level

**C08L 23/02** (2006.01); **C08L 23/08** (2006.01); **C08L 23/10** (2006.01); **C08L 51/00** (2006.01); **C08L 51/06** (2006.01); **C08L 83/10** (2006.01)

CPC (source: CN EP KR RU US)

**C08J 3/005** (2013.01 - US); **C08J 3/22** (2013.01 - KR US); **C08K 3/34** (2013.01 - EP KR US); **C08K 5/005** (2013.01 - EP KR US);  
**C08L 23/02** (2013.01 - RU); **C08L 23/04** (2013.01 - EP KR US); **C08L 23/08** (2013.01 - RU); **C08L 23/10** (2013.01 - RU);  
**C08L 23/12** (2013.01 - CN EP KR US); **C08L 23/14** (2013.01 - CN); **C08L 23/16** (2013.01 - EP US); **C08L 51/06** (2013.01 - RU);  
**C08L 83/04** (2013.01 - CN EP KR US); **C08L 83/10** (2013.01 - RU); **C08L 87/005** (2013.01 - US); **C08G 77/20** (2013.01 - EP US);  
**C08J 2323/12** (2013.01 - US); **C08J 2387/00** (2013.01 - US); **C08L 2205/03** (2013.01 - CN); **C08L 2207/066** (2013.01 - CN);  
**C08L 2310/00** (2013.01 - CN EP US)

C-Set (source: CN EP US)

CN

1. **C08L 83/04 + C08L 23/00**
2. **C08L 23/12 + C08L 83/04**
3. **C08L 23/14 + C08L 23/06 + C08L 83/04**

EP

1. **C08L 23/12 + C08L 83/04**
2. **C08L 83/04 + C08L 23/00**
3. **C08L 23/12 + C08L 23/16 + C08L 23/04 + C08K 3/34 + C08K 5/005**

US

1. **C08L 23/12 + C08L 83/04**
2. **C08L 83/04 + C08L 23/00**
3. **C08L 23/12 + C08L 23/16 + C08L 23/04 + C08K 3/34 + C08K 5/005**
4. **C08L 51/00 + C08L 2666/14**

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2015132190 A1 20150911**; CN 106103577 A 20161109; CN 106103577 B 20200327; EP 3114168 A1 20170111;  
JP 2017507233 A 20170316; JP 6576959 B2 20190918; KR 102399144 B1 20220519; KR 20160141746 A 20161209;  
RU 2016136182 A 20180404; RU 2016136182 A3 20180921; RU 2680845 C2 20190228; US 10246580 B2 20190402;  
US 2017058114 A1 20170302

DOCDB simple family (application)

**EP 2015054279 W 20150302**; CN 201580014989 A 20150302; EP 15707619 A 20150302; JP 2016572895 A 20150302;  
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